



September 26, 2002  
Atty. Docket No.: 2734-CIP-Z

#33

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Francis C. Carroll                                  Group Art Unit 3728

Serial No. 09/027,867                                  Examiner Marie Patterson

Filed: February 23 1998

For: Sports Shoe Cleats

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OCT 07 2002

DECLARATION UNDER 37 C.F.R. S1.132

TECHNOLOGY CENTER R3700

Hon. Commissioner of Patents & Trademarks  
Washington, D.C. 20231

Sir:

I, Joseph E. Wolfe, whose address is 150 Twining Ford Road, Richboro, PA 18954 declare as follows:

1. I received a Master of Engineering degree in Engineering Science from Pennsylvania State University. I also hold a Bachelor of Science degree in Mechanical Engineering from Pennsylvania State University and am an Associate Member of the American Society of Mechanical Engineers. My work experience includes 18 years of engineering related activities. I currently serve as General Engineer in the Vehicle Subsystems Division Thermal Branch, 4.3.5.1 in the Department of Navy Air Systems Command in Lakehurst, New Jersey.

2. I have read the patent specification for application Serial No. 09/027/867 filed in the U.S. Patent and Trademark Office on February 23, 1998. I have read the amended claims submitted 6/7/02, application Serial No. 09/027,867. I have read the official communication from the U.S. Patent and Trademark Office dated July 2, 2002. I have considered all of the claims, and I wish first to direct my comments to claims 33, 41 and 42 which, I have been advised, are the broadest claims in the application. I have also been advised that the main feature of each of these claims is the outward angulation of the traction teeth. These claims, claims 33, 41 and 42, are as follows:

33. A golf shoe cleat comprising a body member having an outer face and an inner face, shoe mounting member having an axis AL which is perpendicular to said inner face and projecting outwardly from said inner face and adapted to secure said cleat in a receptacle in said golf shoe upon rotation of said shoe mounting member about said axis in said receptacle,

a circular array of low profile traction teeth projecting outwardly around the perimeter of said outer face, each traction tooth having a traction surface which faces away from said axis AL, each traction tooth having an axis ALT and each axis ALT having an outward angulation relative to said axis AL to provide lateral stability and enhanced traction through the plane of a golf swing.

41. A golf shoe cleat comprising a body member having an inner face and an outer face, a shoe-attaching member projecting perpendicularly outwardly from said inner face and said shoe-attaching member having an axis AL and adapted to secure said cleat in a receptacle in said receptacle,

a plurality of low-profile traction teeth projecting around the perimeter of the outer face of said main body member in a circular array, each traction tooth having an axis ALT and outer traction surface which are angled away from said axis AL, said outer traction surface and having an outward angulation relative to said axis AL to enhance lateral stability and traction through the plane of a golf swing.

42. A golf shoe cleat comprising a body member having an inner face and an outer face, a shoe-attaching member projecting perpendicularly outwardly from said inner face and said shoe-attaching member having an axis AL and adapted to secure said cleat in a receptacle in said golf shoe upon rotation of said shoe mounting member in said receptacle,

a plurality of low-profile traction teeth projecting around the perimeter of the outer face of said main body member, each traction tooth having an outer traction surface facing away from said axis AL, said outer surface having an outward angulation relative to said axis AL to enhance lateral stability and traction through the plane of a golf swing.

3. I note initially that each of claims 33, 41, and 42 is directed to a golf cleat, which has certain traction requirements throughout the golf swing that are different than the traction requirements for other sports requiring cleats say, for example a football or soccer cleat which involves rapid stop, start, and turn while running, etc. movements.

4. Each claim requiring in the preamble a body member with a shoe mounting member projecting from the inner face and adapted to secure the cleat in a receptacle in the golf shoe "upon rotation of said shoe mounting member about said axis in said receptacle." By implication, the later recited traction teeth are also rotated so that when the golf cleat is fully seated on the golf shoe, the traction teeth project at a given angle outwardly away from the axis of the shoe-attaching member.

5. I understand in an analysis of the right handed back swing through the plane of the golf swing the following occurs:

The right foot being planted bearing the majority of the body's weight as the foot is twisting at a clockwise axis, the angle of the traction teeth directly resist torque from the opposite direction. The teeth, being at an angle (about 37-1/2 degrees preferred) to the cleat, are much longer than merely vertical teeth and project outwardly to provide maximum traction in a torsional or twisting direction or motion and therefore are capable of engaging more turf transversely. As the golfer swings through the golf swing, the plane of the swing causes different traction teeth on different cleats of the golfer's shoe to become more or less tractionally engaged as the golfer proceeds from back swing through hitting the ball and follow-through. At the start of the downswing of a right-handed golfer, weight is transferred from the right foot to the left foot. The left foot becomes planted, bearing the majority of the body's weight. The left foot is twisting in a counterclockwise axis and the outward angulations of the traction teeth directly resist the torque from the opposite direction. Teeth on the perimeter of the cleats located on the golfer's left-hand side of the toe of the left foot become fully engaged. The traction teeth on the golfer's right-hand side of the heel of the left foot are also directly engaged. In addition, the teeth on the cleats in the remaining positions are engaged, respectively resisting a counter torque during the clockwise motion of the left foot.

6. This remains constant through impact with the golf ball at which time the left foot remains fully engaged with the turf as the right foot pushes or lifts up onto its toe during the follow-through or finalization of the golf swing. Thus, the circular array of outward angled teeth provide resistance to a twist or torque from any direction through the plane of the golf swing.

7. This demonstrates that the outward angulation of the traction teeth, as compared to merely vertical teeth, are low profile yet create maximum surface area in the torsional direction to permit more grass blades or turf to be transversely engaged and hence more traction for a given depth of the tooth from the outer surface or face of the body member.

8. I understand from the said official action that the Examiner has rejected claim 42 as being anticipated by Matulla German Patent No. 3811513, the Examiner contending that Matulla shows the cleat as claimed in Figures 1a and 1. In my opinion, the Matulla shoe cleat, is not low profile and is not shaped for torsional resistance and cleats of Matulla have studs or bosses formed thereon and are designed for different traction requirements.

9. I have considered the Examiner's comments that Matulla "clearly shows outwardly angled outer surface of projections in figure 1a ..." (paragraph 12 of the Office Action of July 2, 2002). Figure 1a, is not a manufacturing drawing and does not disclose dimensions of the design. Figure 1a does not indicate or suggest outward angled, low profile, shaped teeth. In addition, Figure 2 (from the German translation of the abstract) is to clear mud or debris from the Matulla cleat. It is fixed to the back of the cleat and illustrates vertical projection lines from the side view to the top view. The combination of Figure 2 to the back of Figure 1a illustrates and suggests the outward angle the examiner sees as impossible for the Matulla design.

10. More importantly, however, is my opinion that Matulla does not teach outward angulation or low profile and does not teach a design for maximum torsional resistance.

11. In paragraph 4 of the Office Action of July 2, 2002, the Examiner rejected claim 41 as being anticipated by Bouyer French Patent 2679421, the Examiner contending that Bouyer shows a golf cleat having:

...a plurality of traction teeth (3) which project outwardly (i.e. out from the base), have an outer traction surface (all surfaces 6, 6A, and 6B), and the outer traction surface (the surfaces 6A and 6B) having an outward angulation.

Note that claim 41 recites a plurality of low profile traction teeth projecting around the perimeter of the main body member in a circular array and that each traction tooth has an "axis ALT and outer traction surface which are angled away from said axis AL...." In French Bouyer, the surfaces 6, 6A and 6B of Bouyer's barbs, or teeth converge inwardly to the tip of the barbs or teeth.

12. Thus, the Bouyer reference does not anticipate the subject matter of claim 41 which requires that:

...each traction tooth having an axis ALT and outer traction surface which are angled away from said axis AL.

13. Moreover, the claim requires that the outer traction surface have an outward angulation relative to the axis AL to "enhance lateral stability and traction through the plane of a golf swing" which is not the case with the Bouyer reference.

14. I understand from paragraph 6 of the Office Action that the Examiner has rejected claims 33, 39, 41 and 42 as being obvious in view of the Softspikes (A unique Holiday Offer article) or Bouyer in view of either Howard (US 2,095,095) or Matulla (German Patent 3811513).

15. Initially, I note that claim 33, like other claims in the application, requires that the cleat is adapted to be mounted on a sole of a golf shoe which secures the cleat in a receptacle "upon rotation of said shoe mounting member about said axis in said receptacle" which implies that however the circular array of low profile teeth end up when seated on the sole, they still are outwardly angled and perform the function recited in the claim, namely the lateral stability and enhanced traction through the plane of a golf swing.

16. I agree that the Softspikes and Bouyer references disclose the portion of the claimed subject matter set out in the first paragraph of each claim.

17. Howard's spikes are single conventional high-profile steel spikes which may be outwardly angled as illustrated in Figure 7. They are mounted on the sole edge. Howard suggests outward angling in one configuration for lateral resistance, but does not have a plurality of teeth on the cleat, does not teach or suggest low profile, does not teach or suggest plurality of outward angled teeth on the cleat, does not teach or suggest any enhanced low profile design for increased traction and maximum torsional resistance.

18. I have reviewed Softspikes (A unique Holiday Offer article), French Bouyer, Howard and German Matulla patent and I do not find in these references any suggestion of the combination proposed by the Examiner. In the Softspikes reference, the traction protuberances (they are not characterized as teeth) protrude straight down; and the surfaces of Bouyer's barbs converge inwardly on the tip of the barb.

19. My belief that it is not obvious to combine the references in the manner proposed by the Examiner is reinforced by the facts that, Bouyer does not teach or suggest outward angulation of teeth, Matulla does not teach or suggest low profile or outward angulation of teeth, Softspikes unique Holiday Offer does not teach or suggest outward angulation of teeth and Howard does not teach or suggest plurality of teeth on the cleat, low profile, plurality of outward angled teeth on the cleat.

20. As noted earlier, Howard discloses spikes which are conventional high profile steel spikes which, are illustrated in figure 7, are outwardly angled, but, by the same token, are shown vertically and inwardly angled. Nothing is said in the reference about shortening them or about them being used in a circular array of low profile traction teeth projecting outwardly around the perimeter of said outer face. note that claim 33, requires that the cleat be rotated about the axis of the shoe mounting member in order to seat it and that, when seated, whatever the orientation of the circular array, the low-profile traction teeth still provide lateral stability and enhanced traction through the plane of the golf swing.

21. There is nothing in the Softspikes article which would suggest the unpatentability proposed by the examiner. Also there is nothing in Howard or Matulla which would suggest the combination. In addition, Bouyer in view of Howard does not anticipate a plurality of outward angled teeth on the cleat. Bouyer in view of Matulla does not anticipate a plurality of outward angled teeth on the cleat.

22. Referring to paragraph 7 of the Office Action dated July 2, 2002, the Examiner rejects claims 31, 34 and 35 as being unpatentable over the same references discussed above in connection with claims 33, 39, 41 and 42 further in view of Kelly (US 5,321,901) or Jordan (US 4,014,114).

These claims add the feature of the anti-debris ring and are not obvious for the same reason as are their parent claims.

23. Referring to paragraph 8 of the Office Action dated July 2, 2002, the Examiner rejects claims 41-43 as being unpatentable over Dassler (US 4,375,728) in view of Jordan (US 4,014,114) contending that:

Dassler shows a cleat comprising a body member (14), a plurality of teeth (2-4) which are outwardly angled from a central axis of the body member substantially as claimed except for the body member being detachably connected to a sole of a shoe. Jordan teaches making a cleat comprising a body with a plurality of teeth detachably connected by providing a mounting member (9) on the body member and also teaches providing an anti-debris ring (7). It would have been obvious to provide a detachable mounting means as taught by Jordan '114 on the cleat of Dassler '728 to allow the user to replace worn or broken cleats, change cleats for different spots, etc.

In reference to claim 43, Dassler '728 teaches the angle of the teeth to be 10 and 80 degrees (column 55-57).

24. I disagree with the Examiner since Dassler does not teach low profile, but the opposite while the entire shoe surface has teeth. Dassler does not provide a means to remove or replace cleats and does not imply cleats. Jordan utilizes removable cleats, but does not disclose or suggest angled teeth.

25. Referring to claims 41-43, it is clear that neither Dassler nor Jordan: (a) are low profile, outwardly angled teeth designed to provide maximum torsional resistance and traction for a golf shoe cleat, (b) nor characterize their protuberances as "teeth"; and (c) neither has teeth which are angulated in the fashion and functionality specified in claims 41, 42 and 43. Dassler obviously does not contemplate, disclose or suggest screwing his members 14 into a sole of a shoe receptacle.

26. Moreover, Dassler obviously seeks to provide a:

...high degree of slip resistance, sole elasticity, and lateral stability even on different deck surfaces, and especially on hard surfaces such as asphalt streets or roads where sufficient shock absorption must be obtained in order to protect the runner from excessive strain.

27. This is not the goal of a golf cleat.

28. Dassler's plural arms which extend at an angle of about 30 degrees – 120 degrees with respect to each other and form an angle of about 10 degrees – 85 degrees with respect to the base tread are angulated for shock-absorbing and cleaning purposes (column 1, lines 58-64). Dassler's plural arms are designed to provide flex for shock absorption while running.

29. Thus, there is no motivation in Dassler or Jordan for a cleat designer to combine the references in the manner suggested by the Examiner, and, when so combined, Jordan's cleats would be large profiled spikes with bores (-16) that would rapidly clog and collect debris. This is the opposite purpose of the functionality claimed in 41-43.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

NAME

DATE: 9/29/02